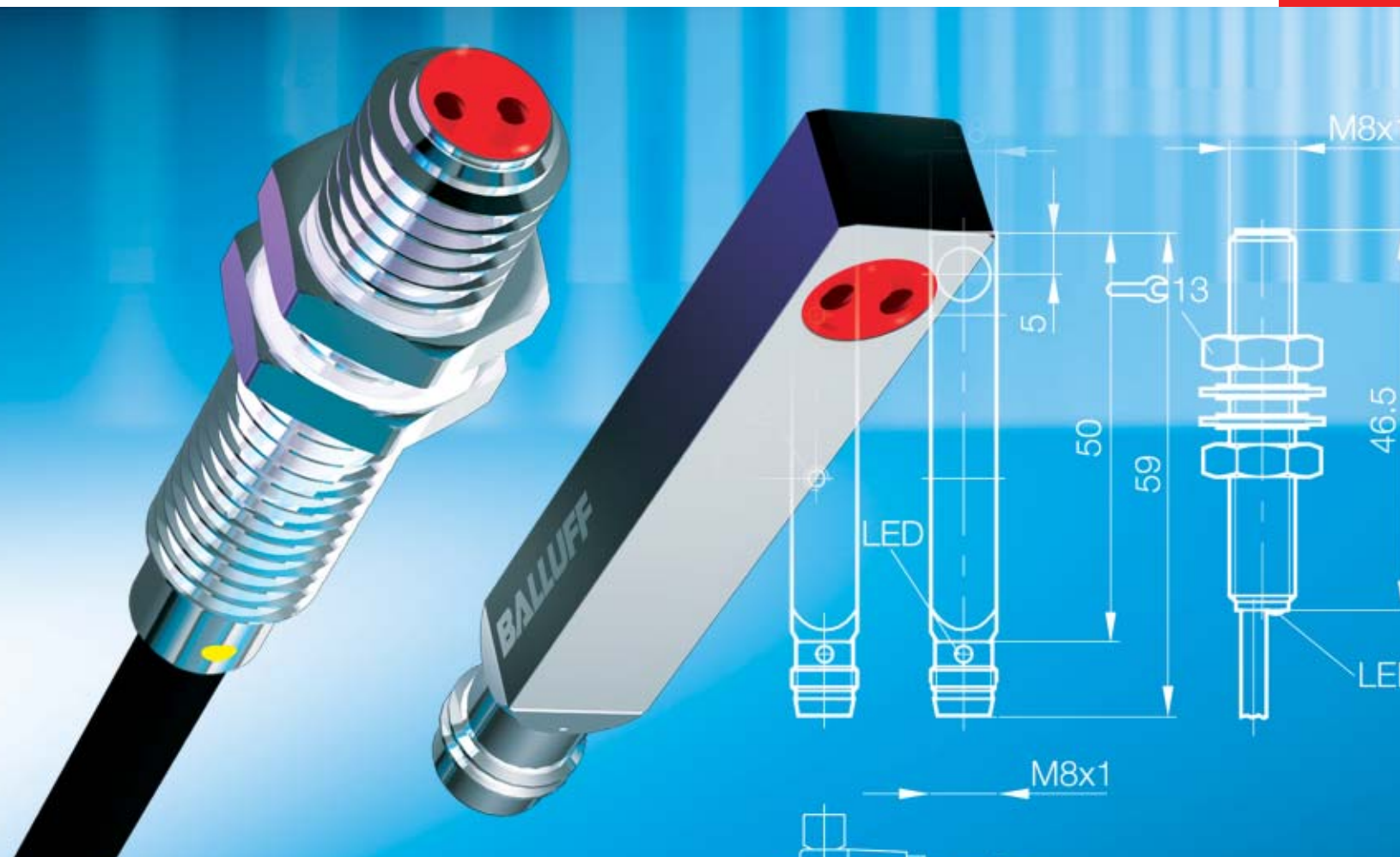


BALLUFF

BOS 08M and BOS Q08M

Opto-mini.s – the new dimension



Photoelectric Sensors

BOS 08M, Cylindrical M8×1
BOS Q08M, Quadraform Housing

BOS 08M

The 08M and Q08M represent a complete family of 8mm tubular and 8x8mm block style photoelectric sensors. This sensor family includes thru-beam, polarized retroreflective, and proximity diffuse sensing modes available as either M8 connector or cable out versions.

The 8mm tubular housing of the 08M offers maximum mounting flexibility in confined areas where space is a premium. The 8mm (0.315") form factor can be used to replace bulky glass fiber optic cables with a 5/16" (0.313") sensing tip. This solution offers a better bend radius than glass fiber optic cables without a loss of light, giving the 08M more power for difficult applications. The self-contained 08M is also an economical solution when compared to glass fiber optic cables and amplifier.

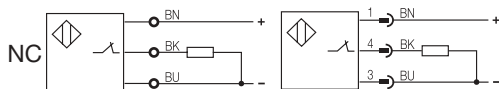
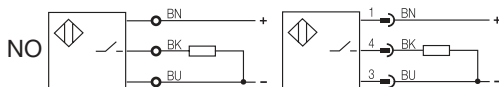
The Q08 8x8x50mm block style offers right angle sensing, allowing the sensor to be easily integrated into machines. This form factor allows the Q08M to be mounted in applications that typical photoelectric sensors could not be used in before. With its rugged IP67 housing, the Q08M is well suited for tough applications.



Wiring diagrams

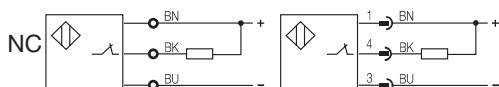
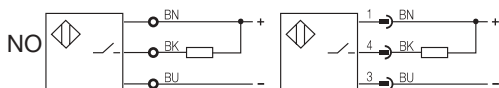
PNP

Diffuse, retroreflective, thru-beam receiver



NPN

Diffuse, retroreflective, thru-beam receiver

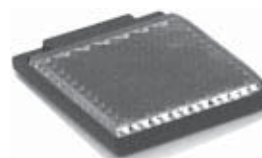


Thru-beam emitter



Recommended accessories

Please order separately.

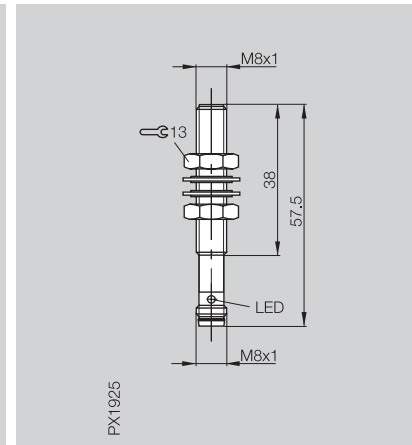
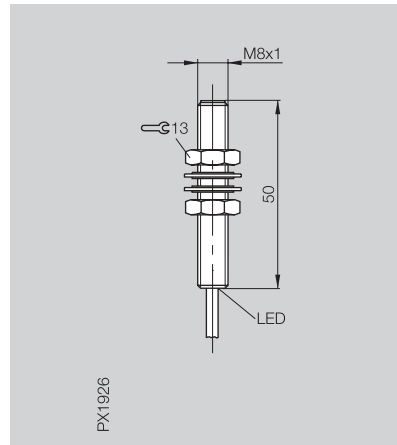


Reflector
BOS R-9



Cable
C49 ANE/BNE

Series	08M	08M
Connection	Cable	M8 Connector

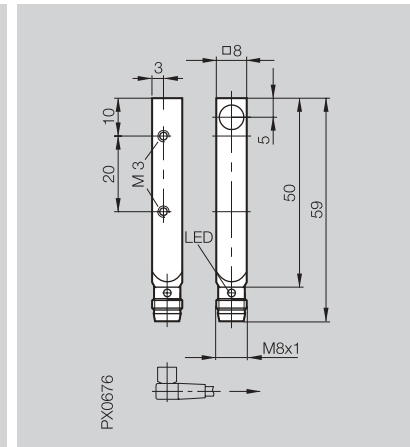
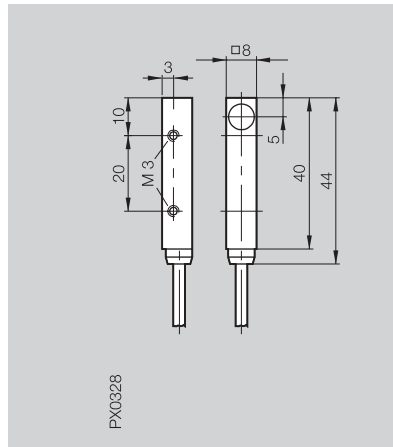


Beam Type	PNP NO	PNP NC	NPN NO	NPN NC	Range	Receiver	Cable Part	Connector Part
Diffuse	Light-on	Dark-on	Light-on	Dark-on	55mm		BOS 08M-PS-RD10-03	BOS 08M-PS-RD10-S49
					55mm		BOS 08M-PO-RD10-03	BOS 08M-PO-RD10-S49
					55mm		BOS 08M-NS-RD10-03	BOS 08M-NS-RD10-S49
					55mm		BOS 08M-NO-RD10-03	BOS 08M-NO-RD10-S49
Polarized Retroreflective	Dark-on	Light-on	Dark-on	Light-on	550mm		BOS 08M-PS-PR10-03	BOS 08M-PS-PR10-S49
					550mm		BOS 08M-PO-PR10-03	BOS 08M-PO-PR10-S49
					550mm		BOS 08M-NS-PR10-03	BOS 08M-NS-PR10-S49
					550mm		BOS 08M-NO-PR10-03	BOS 08M-NO-PR10-S49
Thru-beam	Dark-on	Light-on	Dark-on	Light-on	1.1m	Receiver	BOS 08M-PS-RE10-03	BOS 08M-PS-RE10-S49
					1.1m	Receiver	BOS 08M-PO-RE10-03	BOS 08M-PO-RE10-S49
					1.1m	Receiver	BOS 08M-NS-RE10-03	BOS 08M-NS-RE10-S49
					1.1m	Receiver	BOS 08M-NO-RE10-03	BOS 08M-NO-RE10-S49
Emitter						BOS 08M-XX-RS10-03	BOS 08M-XX-RS10-S49	

Supply Voltage U_B	10...30 Vdc
Ripple	$\leq 10\%$
Voltage Drop U_d at I_e	$\leq 2V$
Rated Output Current I_e	100 mA
Current Consumption I_o (No Load)	Thru-beam ≤ 15 mA, Others ≤ 20 mA
Utilization Category (IEC 60-947-4-1) Output Duty Cycle	DC 13
Emitter Light Source	Visible Red 640 nm
Ambient Light Immunity (EN 60947-5-2)	5000 Lux
LED Output	RED LED
Switching Frequency f	500 Hz
Response Time (On/Off Delay)	≤ 1 ms
Ambient Temperature Range T_a	-10°C to +60°C
Degree of Protection per IEC 60529	IP 67
Housing Material	CuZn nickel plated
Sensing Face Material	PMMA
Connection	Cable 3m, PUR, 3x0.14mm ²
Recommended Connector	Connector C49 ANE / C49 BNE
Weight	47g

Diffuse values referenced to Kodak gray card 90% reflection.
Retroreflective values referenced to R9 reflector.

Series	Q08M	Q08M
Connection	Cable	M8 Connector



Symbol	Configuration	Range	Cable Part	Connector Part
Diffuse	PNP NO Light-on	55mm	BOS Q08M-PS-RD10-03	BOS Q08M-PS-RD10-S49
	PNP NC Dark-on	55mm	BOS Q08M-PO-RD10-03	BOS Q08M-PO-RD10-S49
	NPN NO Light-on	55mm	BOS Q08M-NS-RD10-03	BOS Q08M-NS-RD10-S49
	NPN NC Dark-on	55mm	BOS Q08M-NO-RD10-03	BOS Q08M-NO-RD10-S49
Polarized Retroreflective	PNP NO Dark-on	550mm	BOS Q08M-PS-PR10-03	BOS Q08M-PS-PR10-S49
	PNP NC Light-on	550mm	BOS Q08M-PO-PR10-03	BOS Q08M-PO-PR10-S49
	NPN NO Dark-on	550mm	BOS Q08M-NS-PR10-03	BOS Q08M-NS-PR10-S49
	NPN NC Light-on	550mm	BOS Q08M-NO-PR10-03	BOS Q08M-NO-PR10-S49
Thru-beam	PNP NO Dark-on	1.1m Receiver	BOS Q08M-PS-RE10-03	BOS Q08M-PS-RE10-S49
	PNP NC Light-on	1.1m Receiver	BOS Q08M-PO-RE10-03	BOS Q08M-PO-RE10-S49
	NPN NO Dark-on	1.1m Receiver	BOS Q08M-NS-RE10-03	BOS Q08M-NS-RE10-S49
	NPN NC Light-on	1.1m Receiver	BOS Q08M-NO-RE10-03	BOS Q08M-NO-RE10-S49
Emitter			BOS Q08M-XX-RS10-03	BOS Q08M-XX-RS10-S49

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Recommended Connector	C49 ANE / C49 BNE
Weight	47g 13g

Diffuse values referenced to Kodak gray card 90% reflection.
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BALLUFF

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